

CLAIMS

What is claimed is:

1. An assemblage comprising:
a donor element comprising:
5 a donor support,
a donor layer over the donor support, and
a photothermal conversion material; and
a receptor;
in which:
10 the donor layer comprises a binder and particles of a cyanoacrylate polymer;
the donor layer is in face to face contact with the receptor;
and
either the donor support or the receptor transmits infrared or near infrared
radiation.
- 15 2. The assemblage of claim 1 in which the donor support transmits
infrared or near infrared radiation.
3. The assemblage of claim 2 in which the donor layer comprises the
photothermal conversion material.
4. The assemblage of claim 3 in which the donor layer comprises about
20 1 wt% to about 25 wt% of the photothermal conversion material; about 5 wt% to
about 20 wt% of the binder; and about 60 wt% to about 90 wt% the cyanoacrylate
polymer particles.
5. The assemblage of claim 4 in which the particles have a major
dimension between about 50 nm and about 500 nm.
- 25 6. The assemblage of claim 5 in which the binder is selected from
poly(vinyl pyrrolidone), polyvinyl pyrrolidone/vinyl acetate copolymers, and mixtures

thereof.

7. The assemblage of claim 2 in which the binder is selected from poly(vinyl pyrrolidone), polyvinyl pyrrolidone/vinyl acetate copolymers, and mixtures thereof.

5 8. The assemblage of claim 7 in which the donor layer comprises the photothermal conversion material and the donor layer comprises about 7 wt% to about 20 wt% of the photothermal conversion material; about 10 wt% to about 18 wt% of the binder; and about 65 wt% to about 85 wt % of the cyanoacrylate polymer particles.

10 9. The assemblage of claim 8 in dry weight ratio of the photothermal conversion material to the particles of the cyanoacrylate polymer is from about 0.02:1 to about 0.8:1.

10. The assemblage of claim 2 in which the donor element additionally comprises an absorber layer between the donor support and the donor layer, and
15 the absorber layer comprises the photothermal conversion material.

11. The assemblage of claim 10 in which the binder is selected from poly(vinyl pyrrolidone), polyvinyl pyrrolidone/vinyl acetate copolymers, and mixtures thereof.

12. The assemblage of claim 1 in which the receptor transmits infrared or
20 near infrared radiation.

13. The assemblage of claim 1 in which the binder is selected from the group consisting of poly(vinyl pyrrolidone), poly(vinyl alcohol), polyethyleneimine, poly(ethyloxazoline), polyacrylamide, gelatin, polyacrylic acid, polyvinylimidazole, starches, dextrin, amylogen, gum arabic, agar, algin, carrageenan, fucoidan,
25 laminarin, corn hull gum, gum ghatti, karaya gum, locust bean gum, pectin, guar gum, hydroxypropylcellulose, hydroxypropylmethylcellulose, hydroxyethylcellulose, carboxymethyl cellulose, polyvinyl pyrrolidone/vinyl acetate copolymers, and polyvinyl pyrrolidone/vinylcaprolactam copolymers.

14. The assemblage of claim 1 in which the cyanoacrylate polymer is

selected from the group consisting of poly(methyl-2-cyanoacrylate), (methyl-2-cyanoacrylate/ethyl-2-cyanoacrylate) copolymer, poly(ethoxy-2-ethyl cyanoacrylate), poly(methoxy-2-ethyl cyanoacrylate), (ethoxy-2-ethyl cyanoacrylate/methoxy-2-ethyl cyanoacrylate) copolymer, (ethyl-2-cyanoacrylate/ethoxy-2-ethyl cyanoacrylate) copolymer, (methyl-2-cyanoacrylate/methoxy-2-ethyl cyanoacrylate) copolymer, (ethyl cyanoacrylate/methoxy-2-ethyl cyanoacrylate) copolymer, (methyl cyanoacrylate/ethoxy-2-ethyl cyanoacrylate) copolymer, poly(ethyl-2-cyanoacrylate), poly(*n*-propyl-2-cyanoacrylate), poly(*n*-butyl-2-cyanoacrylate), and mixtures thereof.

15. A method for forming an image, the method comprising the steps of:

(a) thermally imaging an assemblage comprising:

a donor element comprising:

a donor support,

15 a donor layer over the donor support, and

a photothermal conversion material; and

a receptor;

in which:

the donor layer comprises a binder and particles of a cyanoacrylate polymer;

20 the donor layer is in face to face contact with the receptor;

and

either the donor support or the receptor transmits infrared or near infrared radiation; and

(b) separating the donor element from the receptor.

25 16. The method of claim 15 in which the binder is selected from poly(vinyl pyrrolidone), polyvinyl pyrrolidone/vinyl acetate copolymers, and mixtures thereof.

17. The method of claim 15 in which imaging is carried out with a hot

body.

18. The method of claim 15 in which the donor layer comprises the photothermal conversion material.

19. The method of claim 18 in which the receptor transmits infrared or
5 near infrared radiation, imaging is carried out with infrared or near infrared radiation imaging radiation, and the imaging radiation is transmitted by the receptor.

20. The method of claim 18 in which the donor support transmits infrared or near infrared radiation, imaging is carried out with infrared or near infrared radiation imaging radiation, and the imaging radiation is transmitted by the donor
10 support.

21. The method of claim 20 in which the binder is selected from poly(vinyl pyrrolidone), polyvinyl pyrrolidone/vinyl acetate copolymers, and mixtures thereof.